

## Complete Summary

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### GUIDELINE TITLE

Cardiovascular health promotion in the schools: a statement for health and education professionals and child health advocates from the Committee on Atherosclerosis, Hypertension, and Obesity in Youth (AHOY) of the Council on Cardiovascular Disease in the Young, American Heart Association.

### BIBLIOGRAPHIC SOURCE(S)

Hayman LL, Williams CL, Daniels SR, Steinberger J, Paridon S, Dennison BA, McCrindle BW. Cardiovascular health promotion in the schools: a statement for health and education professionals and child health advocates from the Committee on Atherosclerosis, Hypertension, and Obesity in Youth (AHOY) [trunc]. Circulation 2004 Oct 12; 110(15):2266-75. [66 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

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## SCOPE

### DISEASE/CONDITION(S)

Cardiovascular diseases (CVD)

### GUIDELINE CATEGORY

Prevention

### CLINICAL SPECIALTY

Cardiology  
Family Practice  
Pediatrics

## INTENDED USERS

Health Care Providers  
Public Health Departments

## GUIDELINE OBJECTIVE(S)

To optimize the school environment as an integral part of population-based strategies designed to promote cardiovascular health for all US children and youth and reduce the risk and public health burden of cardiovascular disease (CVD)

## TARGET POPULATION

School-age children (kindergarten through grade 12)

## INTERVENTIONS AND PRACTICES CONSIDERED

1. School-based (including preschools and after-school programs) educational programs aimed at promoting cardiovascular health for children and youth emphasizing:
  - Healthy dietary intake
  - Physical activity
  - Smoking behavior
  - Education about risk factors for cardiovascular disease
2. Establishment of school policies that promote physical activity and healthy patterns of nutrition including:
  - Heart-healthy school lunches and snacks
  - Physical education programs
  - Tobacco-free environments in schools
  - School-community links to promote cardiovascular health

## MAJOR OUTCOMES CONSIDERED

- Cardiovascular disease (CVD) risk factor knowledge
- Total fat intake
- Salt/sodium intake
- Total/high density lipoprotein (HDL) cholesterol
- Systolic/diastolic blood pressure
- Indices of obesity
- Pulse rate
- Total fat content of school lunch menus
- Saturated fat content of school lunch menus
- Amount of moderate-to-vigorous physical activity (MVPA) in physical education (PE) programs
- Changes in fat content of food lunch offerings
- Body mass index (BMI)
- $PV_{O_2\max}$

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

### NUMBER OF SOURCE DOCUMENTS

Not stated

### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

### METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

### DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

### RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

### COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This statement was approved by the American Heart Association Science Advisory and Coordinating Committee on July 19, 2004.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

#### Recommendations

The American Heart Association's (AHA's) Council on Cardiovascular Disease in the Young (CVDY) supports the need for both high-risk and population-based approaches to cardiovascular health promotion and risk reduction beginning in early childhood. Consistent with the AHA's Guide for Improving Cardiovascular Health at the Community Level, CVDY endorses the role of schools and school health programs as central and essential components of population-based strategies. To this end, goals and recommendations that are designed to optimize the school environment (including preschools and after-school programs) in promoting cardiovascular health for children and youth are listed below. Information that is relevant to these recommendations is included in the Guidelines and School Health Objectives portion of the Suggested Reading section.

#### Heart Health Education and Health Behaviors

##### Goals

- All schools should implement evidence-based, comprehensive, age-appropriate curricula about cardiovascular health, methods for improving health behaviors, and the reduction of cardiovascular disease (CVD) risk.
- All schools should implement age-appropriate and culturally sensitive curricula on changing students' patterns of dietary intake, physical activity, and smoking behaviors.

##### Recommendations

- School curricula should include general content about the major risk factors for cardiovascular disease and content specific to the sociodemographic, ethnic, and cultural characteristics of the school and the community.
- School curricula should include research-based content about the effective methods of changing cardiovascular disease-related health behaviors.
- Schools should provide the behavioral skill training necessary for students to achieve the regular practice of healthy behaviors.
- Physical education (PE) class should be required at least 3 times per week from kindergarten through grade 12, with an emphasis on increasing the participation of all students in age-appropriate moderate-to-vigorous physical

activity (MVPA). The American Heart Association advocates 150 minutes of PE during each school week for elementary school students and at least 225 minutes per week for middle school students.

- Meals provided in schools should be conducive to cardiovascular health and conform to current recommendations for macronutrient and micronutrient content.
- School buildings and surrounding environments should be designated tobacco-free settings.

#### School Policies

##### Goals

- All schools should institute policies that enforce the implementation of the current national recommendations for physical activity and nutrition for children and youth, including the modification of food services and physical education programs.
- All schools should institute policies that they be maintained as tobacco-free environments.

##### Recommendations

- School policies should address all foods and snacks consumed on- and off-premises during school hours.
- After-school programs should institute policies that are conducive to the consumption of nutritious healthy snacks and an appropriate level of physical activity for all children in their programs. These policies should take into account the stocking of vending machines and the marketing of foods.

#### School and Community Linkages

##### Goal

- All schools should establish links with the community resources and infrastructures necessary to support cardiovascular health promotion and risk reduction for children and youth.

##### Recommendation

- As community thought leaders, schools should make the promotion of healthy patterns of dietary intake and physical activity behaviors in their community a priority.

#### CLINICAL ALGORITHM(S)

None provided

### EVIDENCE SUPPORTING THE RECOMMENDATIONS

#### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting each recommendation is not specifically stated.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

School health programs initiated in preschool and extending through high school have the potential to influence the cardiovascular health of the majority of US children and youth.

### POTENTIAL HARMS

Not stated

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

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### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2004 Oct 12

#### GUIDELINE DEVELOPER(S)

American Heart Association - Professional Association

#### SOURCE(S) OF FUNDING

American Heart Association

#### GUIDELINE COMMITTEE

Working Groups of the American Heart Association Committee on Atherosclerosis, Hypertension

Obesity in Youth (AHOY) of the Council on Cardiovascular Disease in the Young, American Heart Association

#### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Committee Members: Laura L. Hayman, PhD, RN (Cochair); Christine L. Williams, MD, MPH (Cochair); Stephen R. Daniels, MD, PhD; Julia Steinberger, MD, MS; Steve Paridon, MD; Barbara A. Dennison, MD; Brian W. McCrindle, MD, MPH

#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

The American Heart Association makes every effort to avoid any actual or potential conflicts of interest that may arise as a result of an outside relationship or a personal, professional, or business interest of a member of the writing panel. Specifically, all members of the writing group are required to complete and submit a Disclosure Questionnaire showing all such relationships that might be perceived as real or potential conflicts of interest.

##### Disclosure

- Dr Laura L. Hayman reported no financial relationships to disclose.
- Dr Christine L. Williams reported no financial relationships to disclose.
- Dr Stephen R. Daniels reported no financial relationships to disclose.
- Dr Julia Steinberger reported serving as a consultant for American Phytotherapy Research Laboratory, Inc.
- Dr Steve Paridon reported no financial relationships to disclose.
- Dr Barbara A. Dennison reported no financial relationships to disclose.
- Dr Brian W. McCrindle reported no financial relationships to disclose.

This represents the relationships of writing group members that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all members of the writing group are required to complete and submit.

#### GUIDELINE STATUS

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#### GUIDELINE AVAILABILITY

Electronic copies: Available from the [American Heart Association Web site](#).

Print copies: Available from the American Heart Association, Public Information, 7272 Greenville Ave, Dallas, TX 75231-4596; Phone: 800-242-8721

#### AVAILABILITY OF COMPANION DOCUMENTS

None available

#### PATIENT RESOURCES

None available

#### NGC STATUS

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